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Report of the fourth joint meeting of the

INDO-PACIFIC FISHERIES COUNCIL

Special Committee on Management of Indo-Pacific Tuna

Fourth Session

and the

INDIAN OCEAN FISHERY COMMISSION

Committee on Management of Indian Ocean Tuna

Fifth Session

Colombo, Sri Lanka, 29-30 October 1976

FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS

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Rome, 1977

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PREPARATION OF THIS REPORT

This is the final version of the report as approved by the Fourth Joint Meeting of the Indo-Pacific Fisheries Council Special Committee on Management of Indo-Pacific Tuna and the Indian Ocean Fishery Commission Committee on Management of Indian Ocean Tuna.

Distribution

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Members of the Committees
Other interested nations and international organizations
FAO Department of Fisheries
Fishery Officers in FAO Regional Offices
Selector SM

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OPENING OF THE MEETING

1. The Fourth Joint Meeting of the IPFC Special Committee on Management of Indo-Pacific Tuna and of the IOFC Committee on Management of Indian Ocean Tuna was held at the Bandaranaike Memorial International Conference Hall, Colombo, Sri Lanka, on 29-30 October 1976. meeting was attended by representatives from ten of the member countries. A list of delegates is given in Appendix A to this report.

2. In the absence of the Chairman, Mr. E.A. Purnell-Webb (Australia), Dr. J.A. Storer (U.S.A.) was elected as Acting Chairman for the period of the session.

ADOPTION OF THE AGENDA AND ARRANGEMENTS FOR THE MEETING

3. The agenda as given in Appendix B was adopted. The documents considered by the Committees are listed in Appendix C.

STRUCTURE AND RESPONSIBILITIES OF SCIENTIFIC AND ADMINISTRATIVE BODIES

4. The Committees considered the proposal made in the report of the IOFC Ad Hoc Committee of Nations on Tuna Research and Management (IPFC/IOFC:TM/76/5), especially the structure shown in Appendix 3 to that report (it was noted that as printed the labelling of the lower boxes "Ad Hoc Scientific Group" and "Ad Hoc Sub-Committee" had been interchanged). The Committees also noted that closely related proposals had been made for research and management arrangements in general by the IPFC Ad Hoc Committee to Review the Functions and Responsibilities of IPFC (IPFC/IOFC:TM/76/Inf.5). The proposals would be discussed by IPFC at its Seventeenth Session which immediately follows the Committee's session. The decisions taken by IPFC would clearly influence the mechanisms that would be appropriate for tuna management. Though the proposals made by the IPFC Ad Hoc Committee for general research and management were consistent with the proposals for tuna, the Committee believed that it would not be useful to make firm detailed recommendations for structure to deal with tuna until the decisions of IPFC were known.

5. With this reservation concerning IPFC in mind, the Committee agreed with the separation of scientific and administrative functions, as illustrated by the right- and left-hand sides of the diagram in the Ad Hoc Committee's Report (a revised version of the diagram is given as Appendix D of the present report). There should however be close links and consultations between scientists and administration at each stage.

6. There was considerable discussion about the direct links, shown by the left-hand side of the diagram, between the Ad Hoc Sub-Committees, which would examine in detail the management problems relating to a specific stock (for example southern bluefin tuna), and member nations. It was stressed that this channel would not be used for formal recommendations which could be binding on member governments. These would be directed through the tuna management committees and IPFC or IOFC. However, the direct channel and a similar channel between nations and the ad hoc scientific groups, would be useful for less formal advice, which might be acted upon by member governments on a voluntary basis, as well as for directing enquiries by member governments to the sub-committees. These links would have the advantages of being quicker than the more formal links, though the present Committees, and IOFC or IPFC would be kept informed of enquiries made and advice given.

7. It was noted that the proposed organization represented a first step towards a management structure. It was very likely that this structure would need to be modified as experience was gained and that therefore the arrangements should be flexible.

8. The Committees reviewed the proposals made in document IPFC/IOFC:TM/76/4. They noted the help given by ICCAT[1/] in preparing this document and this assistance was gratefully acknowledged. They agreed with the general outline of the management problem facing the

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1/ ICCAT = International Commission for the Conservation of Atlantic Tunas

tuna fisheries of the Indian Ocean and western Pacific, and of the responsibilities of the secretariat, but had a number of specific comments. These comments are given in the following sub-paragraphs, which should be read in conjunction with the basic document to provide a complete picture of the Committee's views on this important subject.

(i) Management action for skipjack could possibly, as described in para (iii), consist of restraints on expansion, but these are only some among a range of possibilities, and the countries concerned might choose to implement other types of control.

(ii) The figure of 600 000 tons used in para 20 should be regarded solely to illustrate the magnitude of the possible economic gains. It was not based on scientific assessments, and the potential yield of skipjack from the region could be slightly below, or considerably above, 600 000 tons.

(iii) The Committees stressed that in the reference in para 20 to "preventing a build-up of excessive capacity in the skipjack fishery" the main emphasis was on the matters of excess. The current plans of many of the countries in the region to develop their local fisheries should be entirely consistent with this approach. Indeed it should be expected that any acceptable management scheme would lead to optimal benefits from the exploitation of the skipjack resources, for all the countries concerned.

(iv) There was some discussion as to how the stock assessment and similar scientific work could be carried out. The prime responsibility for this should lie with member governments, and the secretariat would not be expected to take much active part in making stock assessment studies. It was however hoped that FAO staff would participate in stock assessment discussions, for instance in working groups, particularly with a view to assisting, in this and other ways, some member governments to increase their scientific capacities. It was hoped that the secretariat or FAO would assist in training scientists and others in some member countries to participate more actively in the collection, analysis and interpretation of detailed data.

9. The Committees stressed the importance of obtaining and compiling statistics from all countries participating in the tuna fisheries, whether or not they were members of IOFC and IPFC, and of ensuring the collaboration of all regional bodies and other institutions interested in the research and management of tuna.

FUNDING OF A CENTRAL SECRETARIAT

10. The Committees reviewed the estimates of staff, time (which concerned professional staff only) and costs given in Annex 1 and 2 of IPFC/IOFC:TM/76/4. It noted that some modifications could be suggested, for example, costs of offices, lighting, computer facilities had not been included, and the precise definition and qualifications of the professional staff could well be modified; for example, depending on the qualifications of the executive secretary, his senior assistant might be more usefully qualified as a statistician, rather than a research scientist. Also in Annex 1, several items (including 1, 2 and 3) would not be necessary after the first year, though experience of other bodies suggest that new activities would more than compensate for this.

11. The Coommittes agreed that these modifications would not seriously affect the total costs. For example, it would be virtually impossible to operate an effective secretariat with less than an executive secretary and a statistician. The total costs could not be expected to be substantially less than $ 300 000.

12. The question of how the necessary funding should be obtained was discussed. Although some countries expressed the opinion that long-term funding should be provided by FAO or UNDP, there was general agreement that, in the long term funding should be on the principle

of "user pays". That is, the total costs would be divided among countries in proportion to their interest in the tuna fisheries as judged by, for example, the weight caught, the number of tonnage of tuna vessels, the number of stocks exploited, etc. The Committees therefore recommended to IPFC and IOFC that they should actively seek support from member countries for a tuna management programme, in accordance with these general principles.

13. It was expected that FAO would continue in the long term to give support to the programme, whether through staff time, provision of meeting facilities or any other appropriate ways. In addition, the Committees strongly recommended that, provided some reasonable assurance of long-term support was forthcoming, FAO should give the necessary short-term support to the programme, through its Regular Programme or other sources.

URGENT MATTERS CONCERNING TUNA RESEARCH AND MANAGEMENT

14. The skipjack catches in the western Pacific have recently been rapidly expanding, as described in documents IPFC/IOFC:TM/76/4 (paras 6-11) and IPFC/76/5,Sup.19. This expansion cannot continue indefinitely. There is therefore an urgent need for scientific advice so that timely and appropriate measures are taken to avoid the growth of excessive capacity. A major problem in providing this advice is the lack of knowledge of the stock structure of skipjack, and hence of the degree of interaction between fisheries in different regions. The stock structure could be determined in a number of ways, of which a large-scale tagging experiment, as described in document IPFC/IOFC:TM/76/Inf.4 was one of the most promising. The Committees therefore recommended to countries interested in skipjack to support this programme, since this seemed to be the most effective way of tagging large numbers of fish, using the most effective techniques and carrying out the tagging over a wide area.

15. The Committees considered that arrangements should be made to promote and coordinate research into skipjack of the western Pacific, and accordingly made the following resolution:

> "Recognizing the rapid expansion of the fisheries on skipjack in the southwest Pacific and the urgent need for scientific advice so that timely and appropriate decisions on management and development can be taken, the Special Committee on Management on Indo-Pacific Tuna recommends to IPFC to establish a subsidiary scientific body or group on western Pacific skipjack, with the following terms of reference:
>
> In cooperation with the countries of the central and western Pacific, and appropriate regional organizations, to promote and coordinate those scientific research activities which will lead to a better understanding of the skipkack resources of the western Pacific, and which will enable proposals to be made for management and rational utilization of these resources, which can be implemented at the appropriate national or regional level.
>
> In particular the group should endeavour to
>
> 1. facilitate the better identification of separate skipjack stock or stocks in the region by (a) intensive tagging experiment, (b) genetic studies, and (c) other relevant studies.
>
> 2. investigate the feasibility of a workshop on skipjack catch and effort data no later than two years hence.
>
> The group should also seek the active cooperation of other regional organizations interested in tuna resources in the central and western Pacific, and serve as the scientific body for development and overview of any research projects that might be carried out under the international funding, referring broad policy matters to the IPFC Special Committee on Management of Indo-Pacific Tuna."

16. It was expected that the subsidiary body referred to in this resolution would correspond to one of the scientific groups indicated in the diagram of IPFC/IOFC:TM/76/5, and might be a subsidiary body of the Standing Committee on Research and Statistics, if that were established. Since the IPFC had at the time of the Committees' session not decided on its new arrangements for research and management, the Committees proposed that the precise structure and status of the skipjack group should be decided by IPFC. The arrangements of the group should be such as to most effectively carry out the above terms of reference, and to facilitate the cooperation of all countries and institutions concerned with skipjack.

17. Information on the long-line fishery in the western and central Pacific for yellowfin and bigeye was presented by Japanese scientists in accordance with the recommendation made at the Committees' Third Joint Session. This preliminary assessment showed that for both species the current levels of fishing intensity appear to be near or in excess of the levels giving the maximum sustainable yield from the traditional long-line fisheries (see Annex E).

18. It was noted that there appeared to have been changes in the method of operation of the long-lines used in the Indian Ocean. The effects of these changes on the status of stocks and the fisheries needs early attention.

19. In addition to the long-line fisheries, yellowfin, and to a lesser extent bigeye, are caught in a variety of other gears. The catches of smallfish by some of the surface gears operating in the western Pacific appear to be increasing. There is an urgent need to assess the interaction between the surface and long-line fisheries, and the Committees therefore recommended that all institutions having information on these fisheries should collaborate in making this study, which should also continue the study on the long-line fishery using data on catches after 1974. The offer of the Honolulu Laboratory of the Southwest Center of the U.S. National Marine Fishery Service to arrange for such collaboration was welcomed.

ANY OTHER MATTERS

20. The Committees discussed the species that should be included within their scope. They agreed that, in addition to the major commercial species (large tunas and skipjack), they were concerned with billfishes, and the smaller species of tuna-like fishes (Euthynnus, Auxis, etc.). There was some doubt whether Spanish mackerels (Scomboromorus) and similar species should be included, even though they were included with tunas in some broad classifications (for example, the ICCAT Convention). It was noted that there were some questions concerning the taxonomy of these species, and that this subject was under detailed review by Dr. B. Collette of the National Marine Fishery Service, Washington. In view of the importance of these species in many parts of the Indo-Pacific region, the Committees urged that scientists and institutions in all member countries with significant fisheries on these species should assist in the taxonomic studies by facilitating the supply of material to Dr. Collette.

DATE AND PLACE OF THE NEXT MEETING

21. The Committees agreed that their next meeting should be held immediately preceding and at the same place as the next meeting of IOFC or IPFC. On the presumption that there would be substantive matters to discuss, the earlier meeting, probably of IOFC in October 1977, was preferable.

* * * * *

Appendix A

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GULLAND, J.A.
Secretary

* * * * *

Appendix B

AGENDA

1. Opening of the meeting

2. Adoption of the agenda and arrangements for the meeting

3. Future arrangements for tuna management

   (a) Structure and responsibilities of scientific and administrative bodies

   (b) Immediate and long-term responsibilities of a central secretariat

   (c) Funding of a central secretariat

4. Urgent matters concerning tuna research and management

5. Any other matters

6. Date and place of the next meeting

7. Adoption of the report

* * * * *

Appendix C

LIST OF DOCUMENTS

IPFC/IOFC:TM/76/1	Provisional agenda
2	Annotated provisional agenda
3	Provisional timetable
4	An immediate management programme of tuna in the IPFC/IOFC region
4(C/1)	Comments by Japan on an immediate management programme for tuna in the IPFC/IOFC region
5	Report of the IOFC Ad Hoc Committee of Nations on the Mechanics of Tuna Research and Management
IPFC/IOFC:TM/76/Inf.1 Rev.1	List of documents
2	Information for participants
3	List of delegates and observers
4	A proposal for a skipjack survey and assessment programme in the central and western equatorial Pacific
5	Report of the IPFC Ad Hoc Committee to Review the Functions and Responsibilities of IPFC

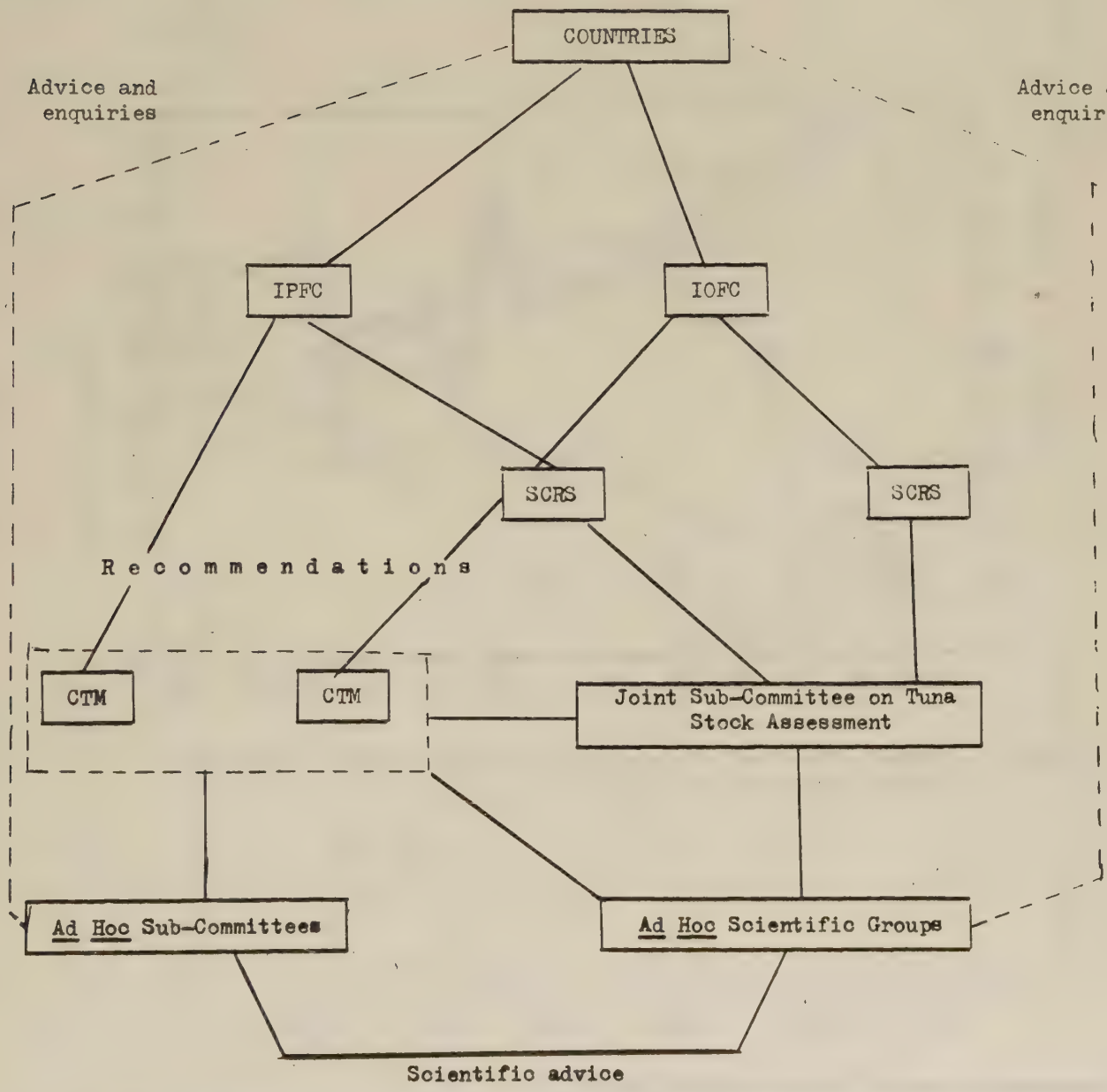
Other relevant documents

IPFC/76/5, Sup.8	Report of an Ad Hoc Committee Meeting of Specialists to Review the Biology and Status of Stocks of Small Tunas, Hawaii, December 1975
5, Sup.19	Recent developments in research on skipjack (Katsuwonus pelamis) populations in Japan by T. Kawasaki. Tohoku University, Japan

* * * * *

Appendix D

CHART SHOWING CHANNELS OF COMMUNICATION BETWEEN PROPOSED BODIES TO BE SET UP UNDER IPFC AND IOFC TO DEAL WITH ADMINISTRATIVE AND SCIENTIFIC ASPECTS OF TUNA MANAGEMENT, RESEARCH AND STATISTICS



CTM = Committee on Tuna Management

SCRS= Standing Committee on Research and Statistics

Appendix E

PRELIMINARY ANALYSIS OF CATCH AND EFFORT DATA OF THE PACIFIC LONG-LINE FISHERIES 1952 - 1974 1/

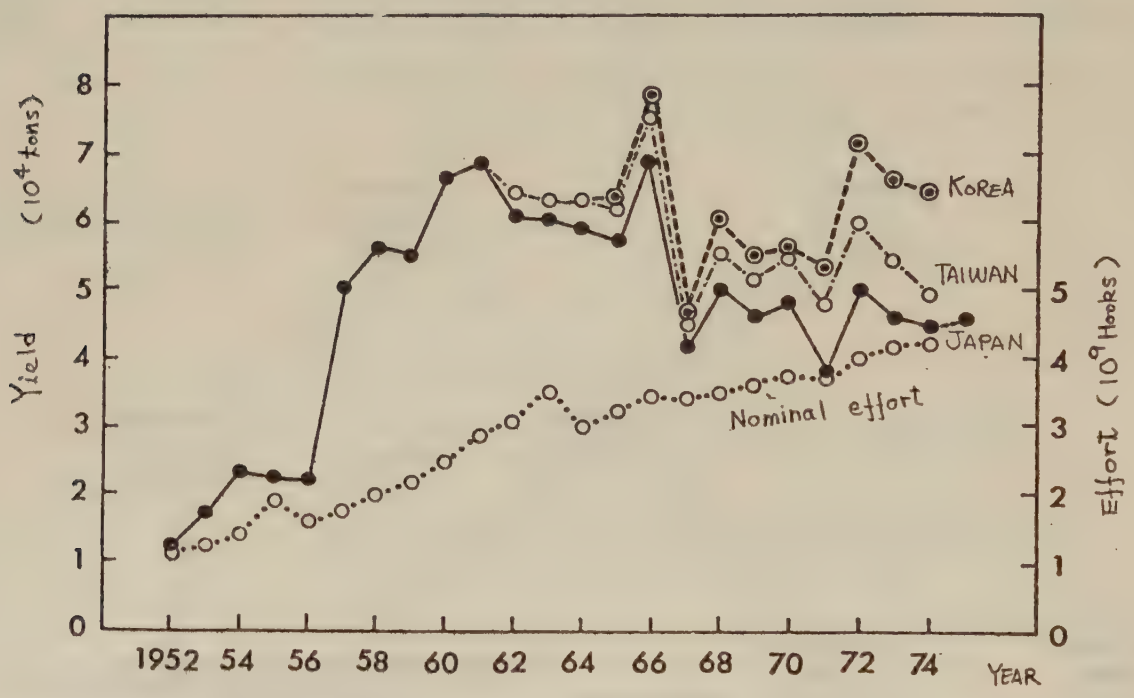


Fig. 1 - Annual effort and catch of yellowfin tuna taken by long-line fleets in the Pacific Ocean.

1/ Figures supplied by Dr. Ueyanagi, Far Seas Fisheries Research Laboratory, Japan. They will be included in a detailed report to be published in the Bulletin of the Laboratory.

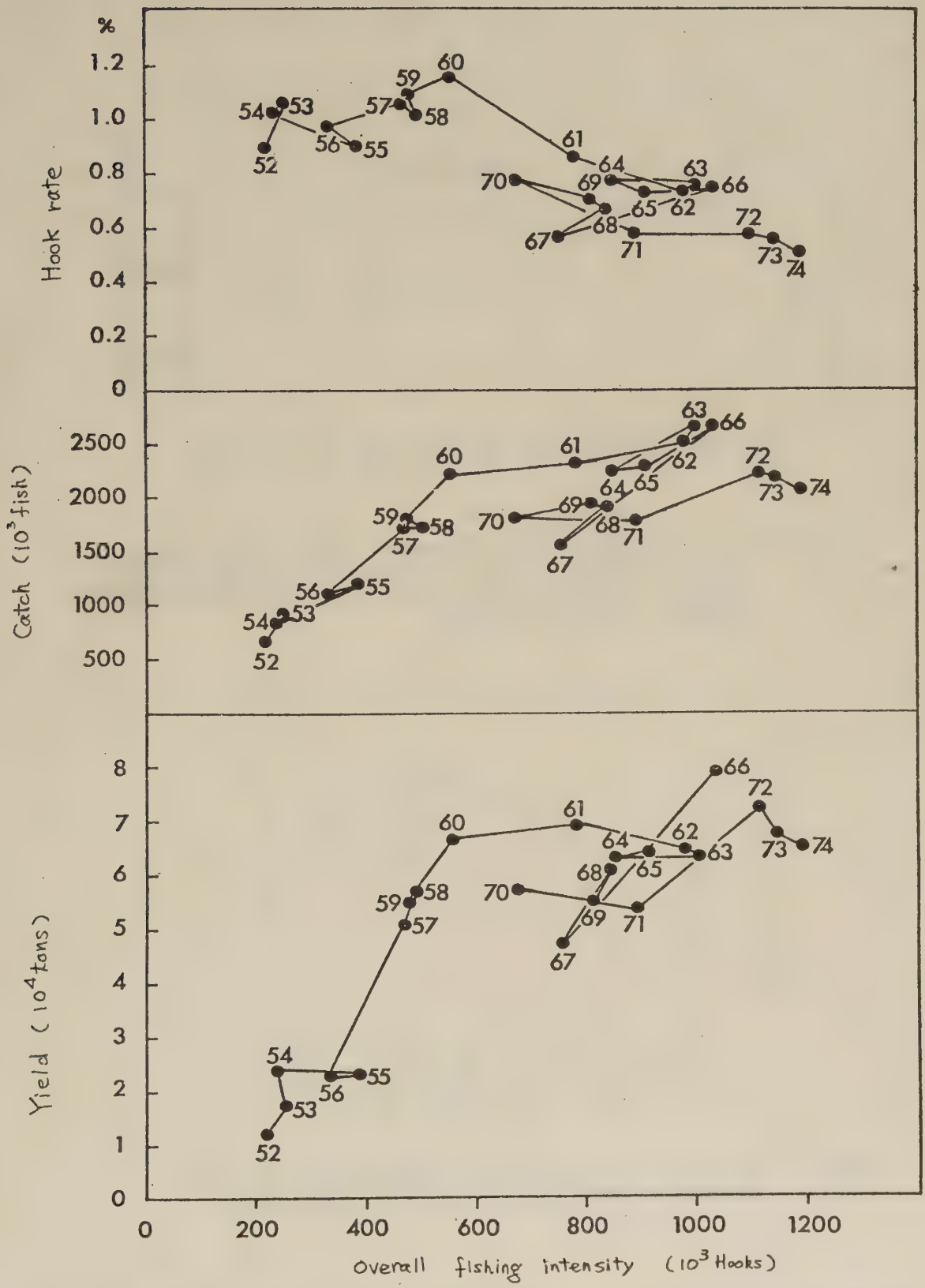


Fig. 2 - Hook rate in percent (upper panel), catch in thousand fish (central panel) and yield in ten thousand tons (lower panel) of yellowfin tuna, plotted against overall fishing intensity in thousand hooks per 5° square in the Pacific long-line fishery.

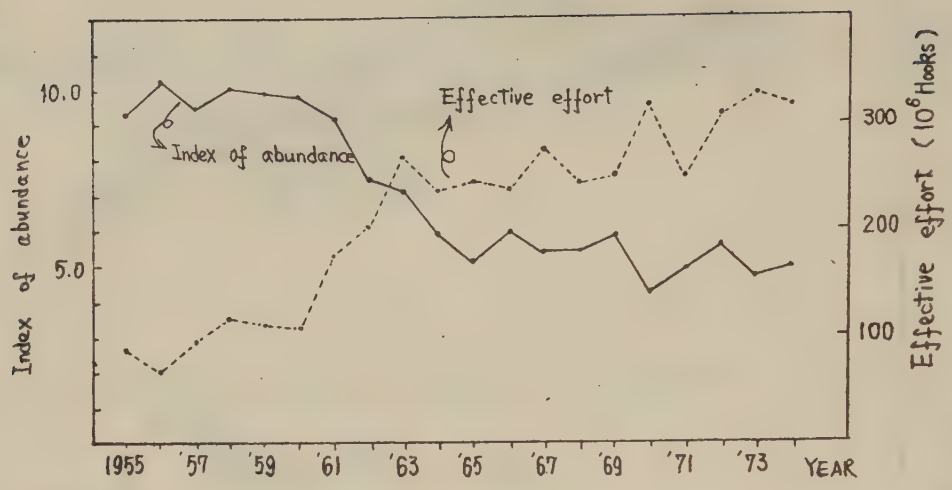


Fig. 3 - Annual change in index of abundance and overall effective effort in number of hooks of bigeye tuna caught by whole long-line fishery in the Pacific Ocean (including Japanese, Taiwanese and Korean fleets).

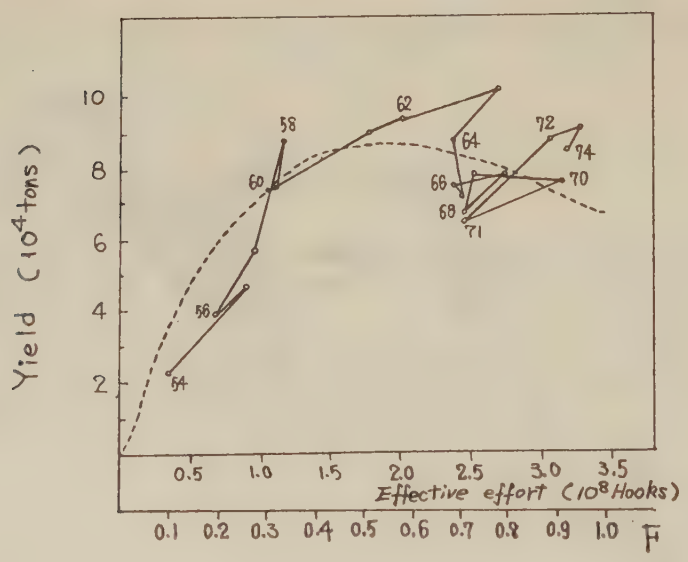


Fig. 4 - The sustainable yield curve (dotted line) and the observed annual catches of Pacific bigeye tuna.

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